List of NOS Monitoring Programs by Program Office

Working Definition of Monitoring – Repetitive measurements intended to establish a baseline or determine a trend of environmental change.

NCCOS
- Center for Coastal Monitoring and Assessment (CCMA)
  - NS&T
    - Benthic Surveillance (1984-93) – 120 sites
    - Mussel Watch (1986-present) – 250 sites
    - Contaminant Sediment Monitoring??
  - Bioeffects Surveys
  - EMAP Cooperative Program – South Atlantic coast
  - Coral Reef Mapping
  - FKNMS – no take zone monitoring
  - Florida Bay restoration monitoring
  - Laboratory Sample Intercomparison sutidies

- Center for Coastal Fisheries and Habitat Research (CCFHR) at Beaufort
  - -- Field & lab techniques for habitat restoration models for Atlantic & Gulf fisheries

- Center for Coastal Environmental Health and Biomolecular Research (CCEHBR) at Charleston
  - -- field methods to detect marine toxins, HABs, and shellfish pathology
  - -- field methods to assess WQ and ecosystem health

- Great Lake Environmental Research Lab (GLERL)
  - -- field methods to detect linkages between coastal environments, biological resources, and atmospheric influences

- Center for Sponsored Coastal Ocean Research (CSCOR) - Coastal Ocean Program

- Coastal Intensive Site Network (CISnet) – NOAA, EPA, NASA
  - – 41 sites for intensive (Tier 3) study, includes some NERR sites

National Geodetic Survey

- National Continuously Operating Reference Station Network/National Spatial Reference System
  - aerial photograph (image acquisition) for digital shoreline and nautical chart production

- BAYONET – subsidence measurements

- Ocean-loading Deformations – changes in ocean floor(?) due to semi-diurnal tides

Coast Survey

- Hydrographic data

Center of Operational Oceanographic Products and Services
- Physical Oceanographic Real-Time Systems (PORTS)
  - -- Real-time tide predictions and ancillary physical and meteorological measurements at 8 sites
- National Water Level Observation Network (NWLON)
  - -- Water level data and ancillary physical and meteorological measurements at 189 sites

ORR

Restoration Monitoring (e.g. Exxon Valdez monitoring) – 1989-2004

CSC

    C-CAP
    Sea Grass Mapping
    Coast Watch (sea surface temperature)
    LIDAR (Light Detection and Ranging) – shoreline change analysis
    Remotely sensed water quality – misc. satellite and aircraft technologies,
          e.g., algal bloom tracking
    Protected Area GIS (PAGIS)
    Benthic Habitat Monitoring, e.g., Coral Reef mapping

OCRM

    Sanctuaries

    NERRS (25 Reserves)
        System-Wide Monitoring Program
            Water quality (underway since 1996 using 2 data loggers per reserve), biological communities and habitat change (proposed), and watershed land use changes (proposed)

    CICEET

SPO

    Socio-economic monitoring

Research the Following:

Coastal GOOS

Integrated Science for Ecosystem Challenges (through CENR)